

**REMARKS/ARGUMENT****Request for Personal Interview:**

Attached hereto is a Form PTOL-413A confirming the personal interview between the Examiner and Applicants' representative on April 15, 2004 at 2:15 PM.

**Regarding the Claims in General:**

Claims 1-66 are now pending. Claims 1-7, 14-33, 37-39, 43-46, 50-52, 56-59, and 61 are withdrawn from consideration as drawn to non-elected species. As it is applicant's position that generic claims are allowable, it is respectfully requested that the withdrawn claims be examined and allowed.

Claims 8, 34, 35 and 48 have been amended to improve the form thereof by eliminating redundant recitations and clarifying potentially ambiguous recitations, etc. Withdrawn claim 33 has also been similarly amended. These claims have not been narrowed by the amendments, and remain generic.

Also, new claims 62-66 have been added to provide applicant with additional protection to which he appears to be entitled in light of the known prior art. Claims 62 and 63 are directed to the elected species. Claims 64-66 are generic.

**Regarding The Allowable Subject Matter**

Applicants note with appreciation the indication that claims 11 and 12 would be allowed if rewritten in independent form incorporating the limitations of their respective parent claims. Because these claims are all indirectly dependent on claim 8 which are believed to be allowable as amended, claims 11 and 12 have been retained in dependent form pending the Examiner's further consideration.

**Regarding the Prior Art Rejections:**

Independent claim 8 has been rejected as unpatentable over Walrath et al. U.S. Patent 6,109,293 (Walrath) in view of Tyler U.S. Patent 4,840,312 (Tyler). The Examiner says that it

would have been obvious to one skilled in the art to have modified Walrath by putting a removable nozzle as taught by Tyler on Walrath's outlet 30 to use Walrath's device in a sprinkler system. With all due respect, the logic supporting this rejection is strained at best.

For one thing, claim 8 is directed to a sprinkler assembly, not a device for "use in a sprinkler system" as asserted by the Examiner. The device disclosed by Walrath is not a sprinkler or a sprinkler assembly, but a valve, and even though the patent suggests use of the subject valve in a sprinkling system (see col. 2, lines 53-65), it is clearly for the purpose of controlling the flow of water through the system piping, and not as, or in a sprinkler *per se*. Indeed, the only description of outlet 30 is at col. 9, lines 64-66, which refers to "typical hose connections, hose bibs, and so forth as would be commonly known to those in the industry." There is nothing anywhere in the reference which suggests putting a nozzle on outlet 30, or using the device itself *as a sprinkler*.

Nor does Tyler remedy the deficiencies in Walrath. There is nothing in Tyler which would motivate one skilled in the art to put a nozzle on the outlet of Walrath's valve. Tyler's sprinkler doesn't even have a flow control valve, and nothing in Tyler suggests any reason for there to be one. Claim 8 is accordingly patentable over the combined teachings of Walrath and Tyler.

Claims 9 and 13 are dependent on claim 8 and are patentable for the reasons stated above. In addition, claim 9 specifies that:

the sleeve valve is rotatable at least between a fully opened position in which the flow opening is aligned with the flow path to allow unobstructed flow through the nozzle housing. . .

This is not the case in Walrath. When the valve is open, sloping portions 36 and 40 definitely obstruct flow path 12. In fact, Walrath's valve depends for its operation on such an obstruction.

Similarly, claim 13 specifies that the sleeve valve is conically shaped. It would not be obvious to make Walrath's valve conical. Indeed, since the operation of a venturi-type valve depends on the convergence and subsequent divergence of the flow path, making Walrath's valve conical would render it inoperative. This alone negates a finding of obviousness, *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). See, also, M.P.E.P. (8<sup>th</sup> Ed., Rev. 1, Feb. 2003) §2143.01.

Claim 10 is dependent on claim 9, and is patentable for the reasons stated above. Lemkin (U.S. Patent 4,538,762) does not remedy the deficiencies in the combined teachings of Walrath and Tyler. Moreover, claim 10 calls for an indicator for the open and closed condition of the valve. As the Examiner recognizes, Lemkin's indicator is for selecting spray patterns. It has no relationship to the open or closed condition of a valve.

Claim 34 stands rejected as unpatentable over Hruby U.S. Patent 3,323,725 (Hruby) in view of Cochran U.S. Patent 4,681,260 (Cochran). From his listing of the elements of Hruby (stationary housing assembly 91, nozzle housing assembly 103, 93, etc.) in Section 5 of the Office Action, it is clear that the Examiner is relying on the embodiment shown in Figs. 8-10.

Claim 34 is directed to the combination of a sprinkler with a stationary housing, a rotatably driven head, and a shut off valve rotatably operable around a longitudinal axis. Hruby does show such a valve, but does not show a nozzle housing assembly which is mounted for rotation. Rather, Hruby's nozzle housing is threadedly attached in a fixed position on housing assembly 91. No person skilled in the mechanical arts would dream of describing this as mounted for rotation, as asserted by the Examiner.

Apart from this, the Examiner does recognize that Hruby does not teach or suggest a rotating-nozzle sprinkler, but he seeks to remedy this deficiency by saying it would be obvious to modify Hruby's sprinkler to give it a rotating nozzle as taught in Cochran.

Hruby expressly teaches away from this, however. In reference to the embodiment of Figs. 8-10, at col. 7, lines 3-11, the patent suggests use of the water dispensing device (i.e., nozzle) 34 of the embodiment of Figs. 1-6. However, the quoted passage states that guide ribs 135 are provided to prevent nozzle 34 from rotating relative to housing 91. (Similar ribs 74 are provided in the embodiment of Figs. 1-6).

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984), see, also, M.P.E.P. (8<sup>th</sup> Ed., Rev. 1, Feb. 2003) §2141.02. Since Hruby expressly teaches that the nozzle should be stationary relative to the housing, it would not be obvious to modify the structure to make the nozzle rotatable, and claim 34 should be allowed.

Claim 35, 36, 41, 42, 47-49, 54, 55, and 60 stand rejected as obvious over Walrath in view of Tyler. This combination of references was shown to be inapplicable to claims 8-10 and 13, and it is equally inapplicable to these claims.

Claim 35, for example, calls for:

a nozzle housing having a central axis and a flow path therein . . . the flow path having a main portion extending along the central axis of the nozzle housing and an angled portion defining a water stream outlet passage . . . [and] a nozzle removably mounted in the outlet passage . . .

Walrath has no part which can be called a nozzle housing having an outlet passage in which a nozzle is removably mounted. The Examiner explicitly recognizes this by his suggestion to attach a nozzle to valve outlet 30. A nozzle so attached would not be mounted *in a housing*, as called for by claim 35.

Claim 35 further requires that the nozzle housing (with the nozzle removably mounted in the outlet passage thereof) have a flow path therein, with:

the flow path having a main portion extending along the central axis of the nozzle housing and an angled portion defining . . . [the] outlet passage . . . and a valve disposed in the nozzle housing flow path which is substantially coaxial with the nozzle housing flow path . . .

As stated above, Walrath does not have anything corresponding to a nozzle housing, nor does Walrath's valve have a flow path which can be described as substantially coaxial with a nozzle housing central axis. Figs. 2 and 3 clearly show that the flow path in Walrath is off the central axis at the interface 14. To modify Walrath to meet this limitation of claim 35 would make the Walrath device inoperative.

Finally, claim 35 requires that the valve be:

so constructed and configured that the parts thereof which control the water flow when the valve is not in the open position are substantially completely displaced from the nozzle flow path when the valve is in a fully open position.

Whether interface 14 and/ or angled portion 26 are considered to be the parts which control the water flow when the valve is not in the open position, they are clearly not substantially completely displaced from the nozzle flow path when the valve is in a fully open position. Claim 35 is therefore not obvious in view of the applied references

Claims 36, 41, 42, and 47 are dependent on claim 35, and are allowable for the same reasons.

Independent claim 48, and dependent claims 49, 54, 55, and 60 are likewise not obvious over Walrath in view of Tyler. This claim requires a nozzle removably mounted *in the outlet passage* as in claim 35, and:

a valve disposed in the nozzle housing which is operable between open and closed positions to control water flow between the main and angled portions of the nozzle housing flow path. . .

In Walrath, the angled portion of the flow path includes elbow portion 26. Even if this is read as a "nozzle housing flow path", in the closed position water is not excluded from elbow 26. Needless, to say, nothing in Tyler remedies this deficiency.

Finally, claim 48 requires that the valve be:

so constructed and configured that the parts thereof which control the water flow cause substantially no obstruction or turbulence in the nozzle flow path when the valve is in a fully open position.

Interface 14 clearly causes both obstruction and turbulence, and relies on the downstream divergent portion to eliminate the turbulence.

The rejection of claims 40 and 53 as unpatentable over Walrath in view of Tyler and Lemkin is improper for the reasons stated above in connection with claim 10 above.

New claims 62 and 63 are dependent on claim 8, claims 64 and 65 are dependent on claim 34, and claim 66 is dependent on claim 35. These claims are patentable for the reasons stated above in reference to their respective parent claims, and also because the specific features recited, in combination with those of their parent claims, are not taught or suggested in Walrath or Tyler, alone or in combination.

As the amended and new claims are of the same scope as the previous claims, no new issues are involved.

In view of the foregoing, entry of this amendment, favorable reconsideration and allowance of this application are respectfully solicited.

I hereby certify that this correspondence is being transmitted via facsimile (703) 872-9306 and (703) 746-4592 on the date indicated below:

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April 14, 2004  
Date of Signature

LAH:sks

Respectfully submitted,

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